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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/679,544	10/06/2000	George Yen	BHT/3092/149	8529

7590 08/19/2003
Dougherty & Troxell
5205 Leesburg Pike Suite 1404
Falls Church, VA 22041

EXAMINER

VO, TIM T

ART UNIT	PAPER NUMBER
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2189

DATE MAILED: 08/19/2003

6

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/679,544

Applicant(s)

YEN, GEORGE

Examiner

Tim T. Vo

Art Unit

2189

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment

1. New claims 12-20 have the same scope of the original claims 1-11; therefore, the new claims 12-20 are rejected for the same ground of rejection as previous office action. Claims 12-20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Pruett et al. patent number 6,263,440 referred hereinafter "Pruett" in view of Lam et al. patent number 5,545,583 referred hereinafter "Lam".

Part III DETAILED ACTION

Notice to Applicant(s)

This application has been examined. Claims 12-20 are pending.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 12-20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Pruett in view of Lam.

As for claims 12 and 16-18, Pruett teaches a disk module of solid state, comprising:

a IDE interface (see figure 3, element 52 and column 5 lines 24-33), being a connector to engage with the main board of a computer (see figure 3, wherein the IDE interface is connected to the PCI bus in the mother board of the computer);

a flash memory controller (see figure 3, element 52 and column 5 lines 25-48, wherein the chipset 52 also controls the nonvolatile CMOS RAM (NVRAM) and flash memory 66), being used to control data access and specify an address of data storage (see column 5 lines 24-61, the chipset 52 utilizes DMA to control data transfer);

a power source, being connected to the flash memory controller supply a working voltage (see figure 2, power supply 17 and column 4 lines 42-43);

Pruett does not expressly teach memory array. However, Lam teaches memory array (see column 2 lines 17-21). Therefore, it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have combined the teachings of Lam into the teachings of Pruett because Lam's memory arrays are densely packed which provides greater storage capacity and limiting space (see column 2 lines 17-21).

As for claims 13-15, Pruett teaches flash memory controller is a single chip controller (see figure 2, chipset 52 and column 5 lines 24-41).

As for claim 19, Pruett teaches the power source extends a power output (see figure 1, power source 17 and column 4 lines 42-60).

As for claims 20, Pruett teaches IDE interface has an extending interface (see figures 2-3, CD-ROM 30, hard disk 31, chipset 52 which containing IDE interface and column 4 line 24 to column 5 line 32).

Response to Arguments

3. Applicant's arguments, see page 7 of remarks, filed on 6/12/03, with respect to double patenting rejection have been fully considered and are persuasive. The double patenting rejection has been withdrawn.

4. In response to the applicant arguments that Pruett does not teach a power source connected to the flash memory controller and the flash memory array to supply a working voltage. Applicant acknowledges that Pruett teaches a power supply 17 for supplying power to the computer system. The applicant admitted this fact that the power supply 17 for supplying power to the computer system, since the flash memory controller is within the computer system. Therefore, the flash memory is also receives power from the power supply 17. In the office action, examiner cited that Pruett does not teach memory array and Lam teaches the memory array. In order to increase storage capacity, it would have been obvious to combine Lam into Pruett. Thus, the power supply 17 would have been supplying power to the memory array in order to operate because power (electricity) is essential in the computer environment.

5. In response to the applicant arguments that Pruett does not teach flash memory controller being an MX9691. Pruett teaches a flash memory controller as cited in the figure 3, element 52 which is equivalent to the MX9691.

Conclusion

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THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tim T. Vo whose telephone number is 703-308-5862. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on 703-305-4815. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-2100.

A handwritten signature in black ink, appearing to read 'Tim Vo', with a long, sweeping horizontal stroke extending to the left.

Tim T. Vo
Examiner
Art Unit 2189

T.V
8/15/03